

The listing of claims will replace all prior versions and listings of claims in the divisional application:

Listing of Claims:

Claims 1-24 (cancelled)

Claim 25 (original): A method of automatically aligning one end of a passenger loading bridge to an aircraft having a doorway, comprising the steps of:

- a) transmitting a first electromagnetic signal forming a beacon using a transmitter disposed proximate a doorway of the aircraft, to which doorway the one end of the passenger loading bridge is to be aligned;
- b) receiving the beacon using a receiver disposed at a location remote from the transmitter;
- c) determining a displacement indicated by the beacon;
- d) providing a control signal based on the determined displacement; and
- e) automatically moving the one end of the passenger loading bridge in a direction toward the doorway of the aircraft based on the control signal.

Claim 26 (original): A method according to claim 25, wherein the receiver is disposed aboard the passenger loading bridge near the one end and wherein the step of c) determining a displacement includes the step of determining a direction along which the strength of the beacon is a maximum value.

Claim 27 (original): A method according to claim 25, wherein the receiver is disposed aboard the passenger loading bridge near the one end and wherein the step of c) determining a displacement includes the step of determining a distance indicated by the beacon.

Claim 28 (original): A method according to claim 25, wherein the receiver is disposed at a location that is remote from each one of the transmitter and the one end of the passenger

loading bridge and wherein the step of c) determining the displacement includes the steps of:

- c1) transmitting a second electromagnetic signal using a second transmitter disposed aboard the passenger loading bridge near the one end;
- c2) receiving the second electromagnetic signal using the receiver; and
- c3) performing a triangulation function based on the beacon and the second electromagnetic signal to determine the direction to a source of the beacon.

Claim 29 (currently amended): A method according to claim 28, ~~wherein the receiver is disposed aboard the passenger loading bridge near the one end and~~ and wherein the step of c) determining a displacement includes the step of determining a distance indicated by the beacon.

Claim 30 (currently amended): A method according to claim 25, wherein the step of c) determining a displacement includes the steps of:

- c1) providing a second receiver at a location remote from each one of the transmitter and the receiver; and,
- c2) performing a first triangulation function using the transmitter, the receiver and the second receiver to determine the displacement.

Claim 31 (original): A method according to claim 30, including the steps of:

- providing a second transmitter near the one end of the passenger loading bridge;
- performing a second triangulation function using the second transmitter, the receiver and the second receiver, to determine a location of the second transmitter; and
- providing a second control signal based on the determined location of the second transmitter.

Claim 32 (currently amended): A method according to claim 31, wherein the step of e) automatically moving the one end of the passenger loading bridge in a direction toward the doorway of the aircraft based upon the control signal includes the steps of:

- e1) determining a next movement of the one end of the passenger loading bridge for moving the one end of the passenger loading bridge in a the determined direction to a source of the beacon;
- e2) performing the determined next movement of the one end of the passenger loading bridge; and
- e3) repeating steps a) to e2) until the first and second control signals are approximately a same value.

Claim 33 (original): A method according to claim 25, wherein the beacon includes information relating to the aircraft, the method including the steps of:

- determining an estimated stopping position of the doorway of the aircraft while the aircraft is in motion and based upon the beacon; and
- moving the one end of the passenger loading bridge to a preposition close to the estimated stopping position.

Claim 34 (original): A method according to claim 33, wherein the step of determining an estimated stopping position of the doorway of the aircraft includes the steps of:

- extracting data indicative of a type of the aircraft from the beacon; and
- retrieving data from a memory relating to the estimated stopping position of the doorway for the indicated type of aircraft.

Claim 35 (original): A method according to claim 25, wherein the beacon is a generic beacon.

Claim 36 (original): A method according to claim 25, wherein the first electromagnetic signal forming the beacon is an optical signal.

Claim 37 (original): A method according to claim 36, wherein the optical signal is transmitted using a wavelength from an infrared region of the electromagnetic spectrum.

Claim 38 (original): A method according to claim 36, wherein the optical signal is transmitted using a wavelength from a visible region of the electromagnetic spectrum.

Claim 39 (original): A method according to claim 36, wherein the optical signal is transmitted using a wavelength from an ultraviolet region of the electromagnetic spectrum.

Claim 40 (original): A method according to claim 36, wherein the optical signal is focused through a lens onto a sensor array having N rows and M columns and wherein at least a column on which the optical signal is focused is indicative of the displacement.

Claim 41 (original): A method according to claim 40, wherein a row upon which the optical signal is focused is also indicative of the displacement.

Claim 42 (original): A method according to claim 41, wherein the row and column are indicative of an angular displacement between the one end and the doorway

Claim 43 (original): A method according to claim 36, wherein the optical signal is focused on an array of optical sensors through at least two apertures.

Claim 44 (original) : A method according to claim 36, wherein a range sensor is used to determine angular displacement and distance between doorway and the one end.

Claim 45 (original): A method according to claim 25, wherein the first electromagnetic signal forming the beacon is a radio-frequency signal.